# 4)IMPROVEMENTS TO ROADS AND DRAINS AT MUNESHWARA BLOCK AT KODIGEHALLI WARD NO.08 (KODIGEHALLI), KODIGEHALLI SUB DIVISION

Scanned by CamScanner

**BRUHAT BANGALORE MAHANAGARA PALIKE**
**PREPARATION OF DPR FOR PACKAGE NO. 03**
**(PACKAGE CONSISTS OF 21 WORKS IN WARD NO 08 AND WARD NO 09)**
**IMPROVEMENTS TO ROADS AND DRAINS AT MUNESHWARA BLOCK AT KODIGEHALLI WARD NO.08**

| Sl. No. | Description of work | Unit | No. | Length m | Breadth m | Depth m | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. (P.No. 136, I.No. 18.18 of CSR 2015-16) (P.No.137, I.No.18.27 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Muneshwara block | Cum | | | | | | | |
| | 4th Cross Road | | 1 | 30.00 | 3.50 | 0.2 | 21.00 | | |
| | Basic rate | | | | | | | 374 | |
| | Area weightage 6% | | | | | | | 22.44 | |
| | Loading & Unloading charges | | | | | | | 116.75 | |
| | | | | | | | 21.00 | 513.19 | 10776.99 |
| 2 | KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Muneshwara block | Cum | | | | | | | |
| | New Drain | | | | | | | | |
| | 4th cross road ch 0-173 | | 2 | 173.00 | 0.95 | 0.80 | 262.96 | | |
| | 4th cross ch 173-264 | | 1 | 91.00 | 0.95 | 0.80 | 69.16 | | |
| | 1st cross | | 1 | 35.00 | 0.95 | 0.80 | 26.60 | | |
| | Culverts | | 3 | 5.40 | 1.30 | 0.90 | 18.95 | | |
| | Basic rate | | | | | | | 82.00 | |
| | Area weightage 6% | | | | | | | 4.92 | |
| | | | | | | | 377.67 | 86.92 | 32827.42 |
| | | | | | | | | | |
| 3 | Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms.(Refer Table. Page No.139) | | | | | | | | |
| | Considered same Qty vide I.No.2+I.No.9 | Cum | | | | | 577.13 | | |
| | Average Weight of Earth (1.28 Ton/cum, Basic rate Rs.2.00 Tonne/Km.) For 15 Kms = (2.50 x 1.28 x 15)/- | | 48 | | | | | | |
| | KSRRB M100-1 Add loading & unloading (P.No.130,I.No.17.1) | | 68 | | | | | | |
| | Total rate per Cum | | 116 | | | | | 116.00 | |
| | Basic rate | | | | | | | 6.96 | |
| | Area weightage 6% | | | | | | 577.134 | 122.96 | 70964.40 |
| | | | | | | | | | |
| 4 | KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Muneshwara block | Cum | | | | | | | |
| | New Drain | | 2 | 173.00 | 0.95 | 0.15 | 49.31 | | |
| | 4th cross road ch 0-173 | | 1 | 91.00 | 0.95 | 0.15 | 12.97 | | |
| | 4th cross ch 173-264 | | 1 | 35.00 | 0.95 | 0.15 | 4.99 | | |
| | 1st cross | | 3 | 5.40 | 1.30 | 0.15 | 3.16 | | |
| | Culverts | | 1.00 | 159.00 | 4.70 | 0.15 | 112.10 | | |
| | 4th cross 105-264 | | 1.00 | 50.00 | 5.00 | 0.15 | 37.50 | | |
| | 5th Cross road | | | | | | | 5046.00 | |
| | Basic rate | | | | | | | 302.76 | |
| | Area weightage 6% | | | | | | 220.01 | 5348.76 | 1176802.08 |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5 | Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | **Bottom Raft** | Cum | | | | | | | |
| | 4th cross road ch 0-173 | | 2.00 | 173.00 | 0.75 | 0.15 | 38.93 | | |
| | 4th cross ch 173-264 | | 1.00 | 91.00 | 0.75 | 0.15 | 10.24 | | |
| | 1st cross | | 1.00 | 35.00 | 0.75 | 0.15 | 3.94 | | |
| | Culverts | | 3.00 | 5.40 | 1.30 | 0.25 | 5.27 | | |
| | **Walls** | | | | | | | | |
| | 4th cross road ch 0-173 | | 4.00 | 173.00 | 0.15 | 0.60 | 62.28 | | |
| | 4th cross ch 173-264 | | 2.00 | 91.00 | 0.15 | 0.60 | 16.38 | | |
| | 1st cross | | 2.00 | 35.00 | 0.15 | 0.60 | 6.30 | | |
| | Culverts | | 6.00 | 5.40 | 0.25 | 0.60 | 4.86 | | |
| | Basic rate | | | | | | | 10408.00 | |
| | Area weightage 6% | | | | | | | 624.48 | |
| | | | | | | | **148.19** | **11032.48** | **1634848.05** |
| 6 | KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Consider 50 Kgs/cum for Drain | Tonne | | 138.06 | 0.050 | -- | 6.91 | | |
| | Consider 80 Kgs/cum for Culvert | Tonne | | 10.13 | 0.080 | -- | 0.81 | | |
| | Basic rate | | | | | | | 60607.00 | |
| | Area weightage 6% | | | | | | | 3636.42 | |
| | | | | | | | **7.72** | **64243.42** | **495959.20** |
| 7 | Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Cover Slab | Sqm | | | | | | | |
| | 4th cross road ch 0-173 | | 2.00 | 173.00 | 0.75 | -- | 259.50 | | |
| | 4th cross ch 173-264 | | 1.00 | 91.00 | 0.75 | -- | 68.25 | | |
| | 1st cross | | 1.00 | 35.00 | 0.75 | -- | 26.25 | | |
| | | | | | | | **354.00** | 1738.00 | **615252.00** |
| 8 | Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Cuivert | | | | | | | | |
| | | | 3.00 | 5.40 | 1.30 | -- | 21.06 | | |
| | | | | | | | **21.06** | 4951.00 | **104268.06** |
| 9 | KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | **Road Portion** | Cum | | | | | | | |
| | 4th cross 105-264 | | 1 | 159.00 | 4.70 | 0.20 | 149.46 | | |
| | 5th Cross road | | 1 | 50.00 | 5.00 | 0.20 | 50.00 | | |
| | Basic rate | | | | | | | 46.00 | |
| | Area weightage 6% | | | | | | | 2.76 | |
| | | | | | | | **199.46** | **48.76** | **9725.67** |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 10 | Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) ((P.No.177, I.No.22.6.1 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Road Portion | Cum | | | | | | | |
| | 4th cross 105-264 | | 1.00 | 159.00 | 4.70 | 0.10 | 74.73 | | |
| | 5th Cross road | | 1.00 | 50.00 | 5.00 | 0.10 | 25.00 | | |
| | Basic rate | | | | | | | 5866.00 | |
| | Area weightage 6% | | | | | | | 351.96 | |
| | | | | | | | **99.73** | **6217.96** | **620117.15** |
| 11 | Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.177, I.No.22.7 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Road Portion | Sqm | | | | | | | |
| | 4th cross 105-264 | | 1 | 159.00 | 4.70 | -- | 747.30 | | |
| | 5th Cross road | | 1 | 50.00 | 5.00 | -- | 250.00 | | |
| | Basic rate | | | | | | | 90.00 | |
| | Area weightage 6% | | | | | | | 5.40 | |
| | | | | | | | **997.30** | **95.40** | **95142.42** |
| | | | | | | | | **Sub Total** | **4866683.44** |
| | | | | | | | | Preperation of DPR And Project management Consultancy Charges(2% of estimated cost) | 100000 |
| | | | | | | | | Miscellaneous and rounding off | **33316.56** |
| | | | | | | | | **Total** | **5000000.00** |
| | | | | | | | | **RUPEES FIFTY LAKHS ONLY** | |

**Certificate.**

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer
Byatarayanapura Division
Yalahanka Zone, B.B.M.P.
Bangalore-560092

Technical Sanction
Accorded for RS50 lakhs only
Head of A/c P3158.....
CER NO ...36..... Dt:... 29/01/18

JA

Scanned by CamScanner

# 5)IMPROVEMENTS TO ROADS AND DRAINS AT MARUTHINAGARA, BHADRAPPA LAYOUT KODIGEHALLI WARD NO.08 (KODIGEHALLI), KODIGEHALLI SUB DIVISION

Scanned by CamScanner

**BRUHAT BANGALORE MAHANAGARA PALIKE**
**PREPARATION OF DPR FOR PACKAGE NO. 03**
**(PACKAGE CONSISTS OF 21 WORKS IN WARD NO 08 AND WARD NO 09)**
**IMPROVEMENTS TO ROADS AND DRAINS AT MARUTHINAGARA, BHADRAPPA LAYOUT KODIGEHALLI WARD NO.08**

| Sl. No. | Description of work | Unit | No. | Length m | Breadth m | Depth m | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. (P.No. 136, I.No. 18.18 of CSR 2015-16) (P.No.137, I.No.18.27 of PW,P&IWTD SR 2015-16) | | | | | | | | |
| | Concrete | Cum | | | | | | | |
| | 13th Cross Perpendicular to 10th Cross | | 1 | 20.00 | 4.50 | 0.15 | 13.50 | | |
| | 13th Cross Bhadrappa Layout | | 1.00 | 70.00 | 6.30 | 0.15 | 66.15 | | |
| | Church Street near Venitech Soln | | 1.00 | 40.00 | 5.00 | 0.15 | 30.00 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 10th A Cross | | 1.00 | 25.00 | 4.00 | 0.15 | 15.00 | | |
| | 10th B Cross | | 1.00 | 25.00 | 4.00 | 0.15 | 15.00 | | |
| | 10th C Cross | | 1.00 | 25.00 | 6.00 | 0.15 | 22.50 | | |
| | Basic rate | | | | | | | 374 | |
| | Area weightage 6% | | | | | | | 22.44 | |
| | Loading & Unloading charges | | | | | | | 116.75 | |
| | | | | | | | **162.15** | **513.19** | **83213.76** |
| 2 | KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Desilt | Cum | | | | | | | |
| | 5th Main Maruthinagar | | | | | | | | |
| | 5th D Cross | | 2 | 30.00 | 0.50 | 0.50 | 15.00 | | |
| | 5th B1 Cross | | 2 | 28.00 | 0.50 | 0.50 | 14.00 | | |
| | 5th B Cross | | 2 | 25.00 | 0.50 | 0.45 | 11.25 | | |
| | 5th C Cross | | 2 | 50.00 | 0.50 | 0.45 | 22.50 | | |
| | 5th A Cross | | 2 | 20.00 | 0.50 | 0.45 | 9.00 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 5th B Cross | | 2 | 40.00 | 0.50 | 0.45 | 18.00 | | |
| | 5th D Cross | | 2 | 65.00 | 0.50 | 0.45 | 29.25 | | |
| | 11th Cross Bhadrappa Layout | | 2 | 70.00 | 0.50 | 0.45 | 31.50 | | |
| | 13th Cross Bhadrappa Layout | | 2 | 70.00 | 0.50 | 0.45 | 31.50 | | |
| | Church Street near Venitech Soln | | 2 | 40.00 | 0.50 | 0.45 | 18.00 | | |
| | 9th B Cross | | 1 | 120.00 | 0.50 | 0.45 | 27.00 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 10th A Cross | | 2 | 25.00 | 0.50 | 0.45 | 11.25 | | |
| | 10th B Cross | | 2 | 25.00 | 0.50 | 0.45 | 11.25 | | |
| | 10th C Cross | | 2 | 25.00 | 0.50 | 0.45 | 11.25 | | |
| | 13th Cross Perpendicular to 10th Cross | | 2 | 20.00 | 0.50 | 0.45 | 9.00 | | |
| | Maruthi nagar (Bhadrappa Layout) | | | | | | | | |
| | 8th B cross | | 1 | 70.00 | 0.95 | 0.90 | 59.85 | | |
| | 7th B cross | | 2 | 105.00 | 0.95 | 0.90 | 179.55 | | |
| | Culvert | | 2 | 7.00 | 1.60 | 1.40 | 31.36 | | |
| | Basic rate | | | | | | | 82.00 | |
| | Area weightage 6% | | | | | | | 4.92 | |
| | | | | | | | **540.51** | **86.92** | **46981.13** |
| 3 | Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms.(Refer Table. Page No.139) | | | | | | | | |
| | Considered same Qty vide I.No.2+I.No.9 | Cum | | | | | 568.80 | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Average Weight of Earth (1.28 Ton/cum, Basic rate Rs.2.00 Tonne/Km.) For 15 Kms = (2.50 x 1.28 x 15)/- | | 48 | | | | | | |
| | KSRRB M100-1 Add loading & unloading (P.No.130,I.No.17.1) | | 68 | | | | | | |
| | Total rate per Cum | | 116 | | | | | | |
| | Basic rate | | | | | | | | |
| | Area weightage 6% | | | | | | | 116.00 | |
| | | | | | | | | 6.96 | |
| | | | | | | | **568.8** | **122.96** | **69939.65** |
| 4 | KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Bed Concrete | Cum | | | | | | | |
| | Culvert | | 2 | 7.00 | 1.6 | 0.15 | 3.36 | | |
| | 13th Cross Perpendicular to 10th Cross | | 1 | 20.00 | 4.50 | 0.15 | 13.50 | | |
| | 13th Cross Bhadrappa Layout | | 1.00 | 70.00 | 6.30 | 0.15 | 66.15 | | |
| | Church Street near Venitech Soln | | 1.00 | 40.00 | 5.00 | 0.15 | 30.00 | | |
| | Maruthi nagar (Bhadrappa Layout) | | | | | | | | |
| | 8th B cross | | 1.00 | 70.00 | 0.95 | 0.15 | 9.98 | | |
| | 7th B cross | | 2.00 | 105.00 | 0.95 | 0.15 | 29.93 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 10th A Cross | | 1.00 | 25.00 | 4.00 | 0.15 | 15.00 | | |
| | 10th B Cross | | 1.00 | 25.00 | 4.00 | 0.15 | 15.00 | | |
| | 10th C Cross | | 1.00 | 25.00 | 6.00 | 0.15 | 22.50 | | |
| | Basic rate | | | | | | | 5046.00 | |
| | Area weightage 6% | | | | | | | 302.76 | |
| | | | | | | | **205.41** | **5348.76** | **1098688.79** |
| 5 | Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | **Bottom Raft** | Cum | | | | | | | |
| | 8th B cross | | 1.00 | 70.00 | 0.75 | 0.15 | 7.88 | | |
| | 7th B cross | | 2.00 | 105.00 | 0.75 | 0.15 | 23.63 | | |
| | Culvert | | 2.00 | 7.00 | 1.40 | 0.15 | 2.94 | | |
| | **Walls** | | | | | | | | |
| | 8th B cross | | 2.00 | 70.00 | 0.15 | 0.60 | 12.60 | | |
| | 7th B cross | | 4.00 | 105.00 | 0.15 | 0.60 | 37.80 | | |
| | Culvert | | 4.00 | 7.00 | 0.25 | 1.00 | 7.00 | | |
| | Basic rate | | | | | | | 10408.00 | |
| | Area weightage 6% | | | | | | | 624.48 | |
| | | | | | | | **91.84** | **11032.48** | **1013222.96** |
| 6 | KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Consider 50Kgs/cum for RCC Drain | Tonne | | 81.90 | 0.050 | -- | 4.10 | | |
| | Consider 80Kgs/cum for Culvert | Tonne | | 9.94 | 0.080 | -- | 0.80 | | |
| | Basic rate | | | | | | | 60607.00 | |
| | Area weightage 6% | | | | | | | 3636.42 | |
| | | | | | | | **4.90** | **64243.42** | **314792.76** |
| 7 | Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Culvert | | 1.00 | 70.00 | 0.75 | -- | 52.50 | | |
| | 8th B cross | | 2.00 | 105.00 | 0.75 | -- | 157.50 | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 8 | Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | 210.00 | 1738.00 | 364980.00 |
| | Culvert | | | | | | | | |
| | | | 2.00 | 7.00 | 1.50 | -- | 21.00 | | |
| | | | | | | | 21.00 | 4961.00 | 103971.00 |
| 9 | KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Road Portion | Cum | | | | | | | |
| | 13th Cross Perpendicular to 10th Cross | | 1 | 20.00 | 4.50 | 0.23 | 20.70 | | |
| | Bad Reaches | | 3 | 2.00 | 2.00 | 0.23 | 2.76 | | |
| | | | 4 | 1.50 | 2.50 | 0.23 | 3.45 | | |
| | | | 5 | 1.00 | 1.20 | 0.23 | 1.38 | | |
| | Basic rate | | | | | | | 46.00 | |
| | Area weightage 6% | | | | | | | 2.76 | |
| | | | | | | | 28.29 | 48.76 | 1379.42 |
| 10 | KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Bad Reaches | Cum | | | | | | | |
| | Bad Reaches | | 3 | 2.00 | 2.00 | 0.23 | 2.76 | | |
| | | | 4 | 1.50 | 2.50 | 0.23 | 3.45 | | |
| | | | 5 | 1.00 | 1.20 | 0.23 | 1.38 | | |
| | Basic rate | | | | | | | 1668.00 | |
| | Area weightage 6% | | | | | | | 100.08 | |
| | | | | | | | 7.59 | 1768.08 | 13419.73 |
| 11 | KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kg/sqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Bad Reaches | Cum | | | | | | | |
| | | | 3 | 2.00 | 2.00 | -- | 12.00 | | |
| | | | 4 | 1.50 | 2.50 | -- | 15.00 | | |
| | | | 5 | 1.00 | 1.20 | -- | 6.00 | | |
| | Basic rate | | | | | | | 26.00 | |
| | Area weightage 6% | | | | | | | 1.56 | |
| | | | | | | | 33.00 | 27.56 | 909.48 |
| 12 | KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Road Portion | Sqm | | | | | | | |
| | 5th Main Maruthinagar | | | | | | | | |
| | 5th D Cross | | 1 | 30.00 | 5.80 | -- | 174.00 | | |
| | 5th B1 Cross | | 1 | 28.00 | 6.50 | -- | 182.00 | | |
| | 5th B Cross | | 1 | 25.00 | 6.30 | -- | 157.50 | | |
| | 5th C Cross | | 1 | 50.00 | 5.00 | -- | 250.00 | | |
| | 5th A Cross | | 1 | 20.00 | 5.20 | -- | 104.00 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 5th B Cross | | 1 | 40.00 | 6.00 | -- | 240.00 | | |
| | 5th D Cross | | 1 | 65.00 | 6.00 | -- | 390.00 | | |
| | 11th Cross Bhadrappa Layout | | 1 | 70.00 | 4.60 | -- | 322.00 | | |
| | 9th B Cross | | 1 | 120.00 | 5.20 | -- | 624.00 | | |
| | 13th Cross Perpendicular to 10th Cross | | 1 | 20.00 | 4.50 | -- | 90.00 | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | **2533.50** | | |
| | Deduct prime coat | | | | | | -33.00 | | |
| | Basic rate | | | | | | | 3.00 | |
| | Area weightage 6% | | | | | | | 0.18 | |
| | | | | | | | **2500.50** | **3.18** | **7951.59** |
| | | | | | | | | | |
| 13 | KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17) | | | | | | | | |
| | Road Portion | Sqm | | | | | | | |
| | For Laying BC | | | | | | | | |
| | 5th Main Maruthinagar | | | | | | | | |
| | 5th D Cross | | 1 | 30.00 | 5.80 | -- | 174.00 | | |
| | 5th B1 Cross | | 1 | 28.00 | 6.50 | -- | 182.00 | | |
| | 5th B Cross | | 1 | 25.00 | 6.30 | -- | 157.50 | | |
| | 5th C Cross | | 1 | 50.00 | 5.00 | -- | 250.00 | | |
| | 5th A Cross | | 1 | 20.00 | 5.20 | -- | 104.00 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 5th B Cross | | 1 | 40.00 | 6.00 | -- | 240.00 | | |
| | 5th D Cross | | 1 | 65.00 | 6.00 | -- | 390.00 | | |
| | 11th Cross Bhadrappa Layout | | 1 | 70.00 | 4.60 | -- | 322.00 | | |
| | 9th B Cross | | 1 | 120.00 | 5.20 | -- | 624.00 | | |
| | 13th Cross Perpendicular to 10th Cross | | 1 | 20.00 | 4.50 | -- | 90.00 | | |
| | Basic rate | | | | | | | 12.00 | |
| | Area weightage 6% | | | | | | | 0.72 | |
| | | | | | | | **2533.50** | **12.72** | **32226.12** |
| | | | | | | | | | |
| 14 | KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Road Portion | Cum | | | | | | | |
| | 5th Main Maruthinagar | | | | | | | | |
| | 5th D Cross | | 1 | 30.00 | 5.80 | 0.04 | 6.96 | | |
| | 5th B1 Cross | | 1 | 28.00 | 6.50 | 0.04 | 7.28 | | |
| | 5th B Cross | | 1 | 25.00 | 6.30 | 0.04 | 6.30 | | |
| | 5th C Cross | | 1 | 50.00 | 5.00 | 0.04 | 10.00 | | |
| | 5th A Cross | | 1 | 20.00 | 5.20 | 0.04 | 4.16 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 5th B Cross | | 1 | 40.00 | 6.00 | 0.04 | 9.60 | | |
| | 5th D Cross | | 1 | 65.00 | 6.00 | 0.04 | 15.60 | | |
| | 11th Cross Bhadrappa Layout | | 1 | 70.00 | 4.60 | 0.04 | 12.88 | | |
| | 9th B Cross | | 1 | 120.00 | 5.20 | 0.04 | 24.96 | | |
| | Basic rate | | | | | | | 7659.00 | |
| | Area weightage 6% | | | | | | | 459.54 | |
| | | | | | | | **97.74** | **8118.54** | **793506.10** |
| | | | | | | | | | |
| 15 | KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Edge line | Sqm | 2 | 448.00 | 0.10 | -- | 89.60 | | |
| | Basic rate | | | | | | | 512.00 | |
| | Area weightage 6% | | | | | | | 30.72 | |
| | | | | | | | **89.60** | **542.72** | **48627.71** |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 16 | Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) ((P.No.177, I.No.22.6.1 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Road Portion | Cum | | | | | | | |
| | 13th Cross Perpendicular to 10th Cross | | 1.00 | 20.00 | 4.50 | 0.125 | 11.25 | | |
| | 13th Cross Bhadrappa Layout | | 1.00 | 70.00 | 6.30 | 0.125 | 55.13 | | |
| | Church Street near Venitech Soln | | 1.00 | 40.00 | 5.00 | 0.125 | 25.00 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 10th A Cross | | 1.00 | 25.00 | 4.00 | 0.125 | 12.50 | | |
| | 10th B Cross | | 1.00 | 25.00 | 4.00 | 0.125 | 12.50 | | |
| | 10th C Cross | | 1.00 | 25.00 | 4.00 | 0.125 | 12.50 | | |
| | Basic rate | | | | | | | 5866.00 | |
| | Area weightage 6% | | | | | | | 351.96 | |
| | | | | | | | 128.88 | 6217.96 | 801339.60 |
| | | | | | | | | | |
| 17 | Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.177, I.No.22.7 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Road Portion | Sqm | | | | | | | |
| | 13th Cross Perpendicular to 10th Cross | | 1.00 | 20.00 | 4.50 | -- | 90.00 | | |
| | 13th Cross Bhadrappa Layout | | 1.00 | 70.00 | 6.30 | -- | 441.00 | | |
| | Church Street near Venitech Soln | | 1.00 | 40.00 | 5.00 | -- | 200.00 | | |
| | 10th Main Maruthinagar | | | | | | | | |
| | 10th A Cross | | 1.00 | 25.00 | 4.00 | -- | 100.00 | | |
| | 10th B Cross | | 1.00 | 25.00 | 4.00 | -- | 100.00 | | |
| | 10th C Cross | | 1.00 | 25.00 | 6.00 | -- | 150.00 | | |
| | Basic rate | | | | | | | 90.00 | |
| | Area weightage 6% | | | | | | | 5.40 | |
| | | | | | | | 1081.00 | 95.40 | 103127.40 |
| | | | | | | | | Sub Total | 4898277.20 |
| | Preperation of DPR And Project management Consultancy Charges(2% of estimated cost) | | | | | | | | 100000 |
| | Miscellaneous and rounding off | | | | | | | | 1722.80 |
| | Total | | | | | | | | 5000000.00 |
| | RUPEES FIFTY LAKHS ONLY | | | | | | | | |

**Certificate.**

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer
Byatarayanapura Division
Yalahanka Zone, B.B.M.P.
Bangalore-560092

Technical Sanction
Accorded for RS 50.00 lakhs only
Head of A/C P3358
CER NO 37 Dt: 29/01/18

Scanned by CamScanner

# 6) IMPROVEMENTS TO ROADS AND DRAINS TO RAILWAY TRACK TO TATANAGARA BESCOM OFFICE ROAD AT KODIGEHALLI WARD NO.08 (KODIGEHALLI), KODIGEHALLI SUB DIVISION

Scanned by CamScanner

**BRUHAT BANGALORE MAHANAGARA PALIKE**
**PREPARATION OF DPR FOR PACKAGE NO. 03**
**(PACKAGE CONSISTS OF 21 WORKS IN WARD NO 08 AND WARD NO 09)**
**IMPROVEMENTS TO ROADS AND DRAINS TO RAILWAY TRACK TO TATANAGARA BESCOM OFFICE ROAD AT KODIGEHALLI WARD NO.08**

| Sl. No. | Description of work | Unit | No. | Length m | Breadth m | Depth m | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Removing and resetting of footpath slab (P.No.265, I.No.37.56 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Bescom office to Railway track | | 2 | 400.00 | 0.90 | -- | 720.00 | | |
| | Bescom office loop road | | 1 | 120.00 | 0.90 | -- | 108.00 | | |
| | Damaged slabs/missing 10% | | | | | | -82.80 | | |
| | Basic rate | | | | | | | 125.00 | |
| | Area weightage 6% | | | | | | | 7.50 | |
| | | | | | | | **745.20** | **132.50** | **98739.00** |
| 2 | KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Desilt | Cum | | | | | | | |
| | Bescom office to Railway track | | 2 | 430.00 | 0.50 | 0.45 | 193.50 | | |
| | Tata nagar | Cum | | | | | | | |
| | Bescom office loop road | | 2 | 230.00 | 0.50 | 0.45 | 103.50 | | |
| | Sapthagiri hall 1st cross | | 2 | 84.00 | 0.50 | 0.45 | 37.80 | | |
| | Sapthagiri hall 2nd cross | | 2 | 82.00 | 0.50 | 0.45 | 36.90 | | |
| | New Drain Hanumaiyya layout 5th mn csrds | | | | | | | | |
| | 1st cross | | 2 | 25.00 | 0.95 | 0.90 | 42.75 | | |
| | 2nd cross | | 2 | 40.00 | 0.95 | 0.90 | 68.40 | | |
| | 3rd Cross Road | | 2 | 55.00 | 0.95 | 0.90 | 94.05 | | |
| | 4th Cross road | | 2 | 70.00 | 0.95 | 0.90 | 119.70 | | |
| | Culvert | | 3 | 5.60 | 2.00 | 1.50 | 50.40 | | |
| | Basic rate | | | | | | | 82.00 | |
| | Area weightage 6% | | | | | | | 4.92 | |
| | | | | | | | **747.00** | **86.92** | **64929.24** |
| 3 | Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms.(Refer Table. Page No.139) | | | | | | | | |
| | Considered same Qty vide I.No.2+I.No.14 | Cum | | | | | 773.21 | | |
| | Average Weight of Earth (1.28 Ton/cum, Basic rate Rs.2.00 Tonne/Km.) For 15 Kms = (2.50 x 1.28 x 15)/- | | 48 | | | | | | |
| | KSRRB M100-1 Add loading & unloading (P.No.130,I.No.17.1) | | 68 | | | | | | |
| | Total rate per Cum | | 116 | | | | | | |
| | Basic rate | | | | | | | 116.00 | |
| | Area weightage 6% | | | | | | | 6.96 | |
| | | | | | | | **773.2085** | **122.96** | **95073.72** |
| 4 | Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | | Sqm | | | | | | | |
| | Bescom office loop road | | 1 | 230.00 | 1.80 | | 414.00 | | |
| | Sapthagiri hall 1st cross | | 2 | 84.00 | 1.35 | | 226.80 | | |
| | Sapthagiri hall 2nd cross | | 2 | 82.00 | 1.35 | | 221.40 | | |
| | | | | | | | **862.20** | | |
| | Consider 20% for Damaged and Missing Slabs | | | | | | -172.44 | | |
| | Basic rate | | | | | | | 76.00 | |
| | Area weightage 6% | | | | | | | 4.56 | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 5 | Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17) | | | | | | **689.76** | **80.56** | **55567.07** |
| | For BS Slab Drain | Sqm | | | | | | | |
| | Consider 20% for Damaged and Missing Slabs | | | | | | 172.44 | | |
| | Basic rate | | | | | | | 628.00 | |
| | Area weightage 6% | | | | | | | 37.68 | |
| | | | | | | | **172.44** | **665.68** | **114789.86** |
| 6 | KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Bed Concrete | Cum | | | | | | | |
| | New Drain Hanumaiyya layout 5th mn csrds | | | | | | | | |
| | 1st cross | | 2 | 25.00 | 0.95 | 0.15 | 7.13 | | |
| | 2nd cross | | 2 | 40.00 | 0.95 | 0.15 | 11.40 | | |
| | 3rd Cross Road | | 2 | 55.00 | 0.95 | 0.15 | 15.68 | | |
| | 4th Cross road | | 2 | 70.00 | 0.95 | 0.15 | 19.95 | | |
| | Culvert | | 3 | 5.60 | 2.00 | 0.15 | 5.04 | | |
| | Basic rate | | | | | | | 5046.00 | |
| | Area weightage 6% | | | | | | | 302.76 | |
| | | | | | | | **59.19** | **5348.76** | **316593.10** |
| 7 | KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17) | | | | | | | | |
| | SSM Wall | Cum | | | | | | | |
| | culverts | | 6.00 | 5.60 | 0.60 | 1.15 | 23.18 | | |
| | Basic rate | | | | | | | 4187.00 | |
| | Area weightage 6% | | | | | | | 251.22 | |
| | | | | | | | **23.18** | **4438.22** | **102895.69** |
| 8 | KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17) | | | | | | | | |
| | SSM Wall | Sqm | | | | | | | |
| | culverts | | 6.00 | 5.60 | -- | 1.15 | 38.64 | | |
| | Basic rate | | | | | | | 97.00 | |
| | Area weightage 6% | | | | | | | 5.82 | |
| | | | | | | | **38.64** | **102.82** | **3972.96** |
| 9 | KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Coping | Cum | 6.00 | 5.60 | 0.60 | 0.10 | 2.02 | | |
| | culverts | | | | | | | 5441.00 | |
| | Basic rate | | | | | | | 326.46 | |
| | Area weightage 6% | | | | | | **2.02** | **5767.46** | **11627.20** |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 10 | Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | **Bottom Raft** | Cum | | | | | | | |
| | **New Drain Hanumaiyya layout 5th mn csrds** | | | | | | | | |
| | 1st cross | | 2.00 | 25.00 | 0.75 | 0.15 | 5.63 | | |
| | 2nd cross | | 2.00 | 40.00 | 0.75 | 0.15 | 9.00 | | |
| | 3rd Cross Road | | 2.00 | 55.00 | 0.75 | 0.15 | 12.38 | | |
| | 4th Cross road | | 2.00 | 70.00 | 0.75 | 0.15 | 15.75 | | |
| | **Walls** | | | | | | | | |
| | 1st cross | | 4.00 | 25.00 | 0.15 | 0.60 | 9.00 | | |
| | 2nd cross | | 4.00 | 40.00 | 0.15 | 0.60 | 14.40 | | |
| | 3rd Cross Road | | 4.00 | 55.00 | 0.15 | 0.60 | 19.80 | | |
| | 4th Cross road | | 4.00 | 70.00 | 0.15 | 0.60 | 25.20 | | |
| | Basic rate | | | | | | | 10408.00 | |
| | Area weightage 6% | | | | | | | 624.48 | |
| | | | | | | | **111.15** | **11032.48** | **1226260.15** |
| 11 | KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Consider 50Kgs/cum for Drain | Tonne | | 111.15 | 0.050 | -- | 5.56 | | |
| | Basic rate | | | | | | | 60607.00 | |
| | Area weightage 6% | | | | | | | 3636.42 | |
| | | | | | | | **5.56** | **64243.42** | **357193.42** |
| 12 | Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Cover Slab | Sqm | | | | | | | |
| | Damaged slabs/missing 10% | | | | | | 82.80 | | |
| | 1st cross | | 2.00 | 25.00 | 0.75 | -- | 37.50 | | |
| | 2nd cross | | 2.00 | 40.00 | 0.75 | -- | 60.00 | | |
| | 3rd Cross Road | | 2.00 | 55.00 | 0.75 | -- | 82.50 | | |
| | 4th Cross road | | 2.00 | 70.00 | 0.75 | -- | 105.00 | | |
| | | | | | | | **367.80** | 1738.00 | **639236.40** |
| 13 | Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Culvert | | | | | | | | |
| | | | 3.00 | 5.60 | 1.80 | -- | 30.24 | | |
| | | | | | | | **30.24** | 4951.00 | **149718.24** |
| 14 | KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | **Road Portion** | Cum | | | | | | | |
| | **Bad Reaches** | | | | | | | | |
| | | | 7 | 2.00 | 2.50 | 0.23 | 8.05 | | |
| | | | 8 | 2.00 | 2.00 | 0.23 | 7.36 | | |
| | | | 9 | 1.50 | 2.50 | 0.23 | 7.76 | | |
| | | | 11 | 1.00 | 1.20 | 0.23 | 3.04 | | |
| | **Basic rate** | | | | | | | 46.00 | |
| | **Area weightage 6%** | | | | | | | 2.76 | |
| | | | | | | | **26.21** | **48.76** | **1277.93** |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 15 | KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | **Bad Reaches** | Cum | | | | | | | |
| | | | 7 | 2.00 | 2.50 | 0.23 | 8.05 | | |
| | | | 8 | 2.00 | 2.00 | 0.23 | 7.36 | | |
| | | | 9 | 1.50 | 2.50 | 0.23 | 7.76 | | |
| | | | 11 | 1.00 | 1.20 | 0.23 | 3.04 | | |
| | Basic rate | | | | | | | 1668.00 | |
| | Area weightage 6% | | | | | | | 100.08 | |
| | | | | | | | **26.21** | **1768.08** | **46338.72** |
| 16 | KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kg\sqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | **Bad Reaches** | Cum | | | | | | | |
| | | | 7 | 2.00 | 2.50 | -- | 35.00 | | |
| | | | 8 | 2.00 | 2.00 | -- | 32.00 | | |
| | | | 9 | 1.50 | 2.50 | -- | 33.75 | | |
| | | | 11 | 1.00 | 1.20 | -- | 13.20 | | |
| | Basic rate | | | | | | | 26.00 | |
| | Area weightage 6% | | | | | | | 1.56 | |
| | | | | | | | **113.95** | **27.56** | **3140.46** |
| 17 | KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Road Portion | Sqm | | | | | | | |
| | Bescom office to Railway track | | 1 | 430.00 | 5.90 | -- | 2537.00 | | |
| | Bescom office loop road | | 1 | 230.00 | 5.50 | -- | 1265.00 | | |
| | Sapthagiri hall 1st cross | | 1 | 84.00 | 3.70 | -- | 310.80 | | |
| | Sapthagiri hall 2nd cross | | 1 | 82.00 | 4.30 | -- | 352.60 | | |
| | | | | | | | **4465.40** | | |
| | Deduct prime coat | | | | | | -113.95 | | |
| | Basic rate | | | | | | | 3.00 | |
| | Area weightage 6% | | | | | | | 0.18 | |
| | | | | | | | **4351.45** | **3.18** | **13837.61** |
| 18 | KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17) | | | | | | | | |
| | Road Portion | Sqm | | | | | | | |
| | For Laying BC | | | | | | | | |
| | Bescom office to Railway track | | 1 | 430.00 | 5.90 | -- | 2537.00 | | |
| | Bescom office loop road | | 1 | 230.00 | 5.50 | -- | 1265.00 | | |
| | Sapthagiri hall 1st cross | | 1 | 84.00 | 3.70 | -- | 310.80 | | |
| | Sapthagiri hall 2nd cross | | 1 | 82.00 | 4.30 | -- | 352.60 | | |
| | Basic rate | | | | | | | 12.00 | |
| | Area weightage 6% | | | | | | | 0.72 | |
| | | | | | | | **4465.40** | **12.72** | **56799.89** |
| 19 | KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Road Portion | Cum | | | | | | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Bescom office to Railway track | | 1 | 430.00 | 5.90 | 0.04 | 101.48 | | |
| | Bescom office loop road | | 1 | 230.00 | 5.50 | 0.04 | 50.60 | | |
| | Sapthagiri hall 1st cross | | 1 | 84.00 | 3.70 | 0.04 | 12.43 | | |
| | Sapthagiri hall 2nd cross | | 1 | 82.00 | 4.30 | 0.04 | 14.10 | | |
| | Basic rate | | | | | | | 7659.00 | |
| | Area weightage 6% | | | | | | | 459.54 | |
| | | | | | | | **178.62** | **8118.54** | **1450101.14** |
| 20 | KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Edge line | Sqm | 2 | 826.00 | 0.10 | -- | 165.20 | | |
| | Basic rate | | | | | | | 512.00 | |
| | Area weightage 6% | | | | | | | 30.72 | |
| | | | | | | | **165.20** | **542.72** | **89657.34** |
| | | | | | | | | **Sub Total** | **4897749.136** |
| | | | | | | | | Preperation of DPR And Project management Consultancy Charges(2% of estimated cost) | 100000 |
| | | | | | | | | Miscellaneous and rounding off | 2250.86 |
| | | | | | | | | **Total** | **5000000.00** |
| | | | | | | | | **RUPEES FIFTY LAKHS ONLY** | |

**Certificate.**

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer
Byatarayanapura Division
Yalahanka Zone, B.B.M.P.
Bangalore-560092

Technical Sanction
Accorded for RS50 wolacleuly
Head of A/c P3158
CER NO 38 Dt. 29/01/18

AEE — EE (YNK)

Scanned by CamScanner

# 7)IMPROVEMENTS TO ROADS AND DRAINS AT SHANBOG NARAYANAPPA LAYOUT AT KODIGEHALLI WARD NO.08 (KODIGEHALLI), KODIGEHALLI SUB DIVISION

Scanned by CamScanner

**BRUHAT BANGALORE MAHANAGARA PALIKE**

**PREPARATION OF DPR FOR PACKAGE NO. 03**

**(PACKAGE CONSISTS OF 21 WORKS IN WARD NO 08 AND WARD NO 09)**

**IMPROVEMENTS TO ROADS AND DRAINS AT SHANBOG NARAYANAPPA LAYOUT AT KODIGEHALLI WARD NO.08**

| Sl. No. | Description of work | Unit | No. | Length m | Breadth m | Depth m | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | shanbog narayanappa layout | Cum | | | | | | | |
| | Cross Road opp to Kalpataru monark | | 2 | 65.00 | 0.50 | 0.4 | 24.70 | | |
| | Parallel To Kalpataru Monark | | 2 | 30.00 | 0.50 | 0.4 | 11.40 | | |
| | Shanbog Narayanappa layout main road | | 2 | 300.00 | 0.50 | 0.4 | 114.00 | | |
| | RHS c/s in shanbog road | | 2 | 110.00 | 0.50 | 0.4 | 41.80 | | |
| | Beside Little Wonders | | 2 | 120.00 | 0.50 | 0.4 | 45.60 | | |
| | Infront Of Little wonder | | 2 | 80.00 | 0.50 | 0.4 | 30.40 | | |
| | 3rd Cross in 8th Main Lhs balaji lyt | | 1 | 100.00 | 0.50 | 0.4 | 19.00 | | |
| | 3rd Cross in 8th Main Rhs balaji lyt | | 1 | 40.00 | 0.50 | 0.4 | 7.60 | | |
| | KM narayanappa layout cross road1 | | 2 | 110.00 | 0.50 | 0.60 | 66.00 | | |
| | KM narayanappa layout cross road2 | | 2 | 115.00 | 0.50 | 0.60 | 69.00 | | |
| | Amco layout 1st main(impact college opp) | | 1 | 150.00 | 0.50 | 0.60 | 45.00 | | |
| | New Drain | | | | | | | | |
| | Bck Side Road of Fort House Apt | | 1 | 100.00 | 1.10 | 0.85 | 93.50 | | |
| | Culvert | | 2 | 6.50 | 1.60 | 1.40 | 29.12 | | |
| | Basic rate | | | | | | | 82.00 | |
| | Area weightage 6% | | | | | | | 4.92 | |
| | | | | | | | **597.12** | **86.92** | **51901.67** |
| 2 | Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms.(Refer Table. Page No.139) | | | | | | | | |
| | Considered same Qty vide I.No.1+I.No.12 | Cum | | | | | 615.89 | | |
| | Average Weight of Earth (1.28 Ton/cum, Basic rate Rs.2.00 Tonne/Km.) For 15 Kms = (2.50 x 1.28 x 15)/- | | 48 | | | | | | |
| | KSRRB M100-1 Add loading & unloading (P.No.130,I.No.17.1) | | 68 | | | | | | |
| | Total rate per Cum | | 116 | | | | | 116.00 | |
| | Basic rate | | | | | | | 6.96 | |
| | Area weightage 6% | | | | | | **615.888** | **122.96** | **75729.59** |
| 3 | Removing and refixing stone slabs of drains and pointing in CM (1:3) (P.No.25, I.No.5.33 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | shanbog narayanappa layout | Sqm | | | | | | | |
| | Cross Road opp to Kalpataru monark | | 2 | 65.00 | 1.80 | | 234.00 | | |
| | Parallel To Kalpataru Monark | | 2 | 30.00 | 1.80 | | 108.00 | | |
| | Shanbog Narayanappa layout main road | | 2 | 300.00 | 1.80 | | 1080.00 | | |
| | RHS c/s in shanbog road | | 2 | 110.00 | 1.80 | | 396.00 | | |
| | Beside Little Wonders | | 2 | 120.00 | 1.80 | | 432.00 | | |
| | 3rd Cross in 8th Main Lhs balaji lyt | | 1 | 100.00 | 1.35 | | 135.00 | | |
| | | | 1 | 40.00 | 1.80 | | 72.00 | | |
| | KM narayanappa layout cross road1 | | 2 | 110.00 | 1.35 | | 297.00 | | |
| | KM narayanappa layout cross road2 | | 1 | 115.00 | 1.35 | | 155.25 | | |
| | | | | | | | **2909.25** | | |
| | Consider 30% for Damaged and Missing Slabs | | | | | | -872.78 | | |
| | Basic rate | | | | | | | 76.00 | |
| | Area weightage 6% | | | | | | | 4.56 | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 4 | Providing granite Slabs of Selected quality roughly dressed and fixed in cement mortor (1:6) including fixing curing etc,. Complete. 7.5cms thick (P.No.25, I.No.5.31.1 of PW, P&IWTD SR 2016-17) | | | | | | 2036.48 | 80.56 | 164058.43 |
| | For BS Slab Drain | Sqm | | | | | | | |
| | Consider 30% for Damaged and Missing Slabs | | | | | | 872.78 | | |
| | Basic rate | | | | | | | 628.00 | |
| | Area weightage 6% | | | | | | | 37.68 | |
| | | | | | | | 872.78 | 665.68 | 580988.86 |
| 5 | KSRRB M300- Construction of Embankment with Material Gravel/ Murrum. KSRRB M300-53. Construction of embankment with approved material Gravel/Murrum with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement Table 300- 2 complete as per specifications.(Including cost of gravel / murrum, watering charges & compaction by vibratory roller to 95% of proctors density) MORTH Specification No. 305 (P.No.147, I.No.19.60 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | shanbog narayanappa layout | | | | | | | | |
| | Cross Road opp to Kalpataru monark | | 2 | 65.00 | 0.60 | 0.50 | 39.00 | | |
| | Parallel To Kalpataru Monark | | 2 | 30.00 | 0.60 | 0.50 | 18.00 | | |
| | Shanbog Narayanappa layout main road | | 2 | 300.00 | 0.60 | 0.50 | 180.00 | | |
| | RHS c/s in shanbog road | | 2 | 110.00 | 0.60 | 0.50 | 66.00 | | |
| | Beside Little Wonders | | 2 | 120.00 | 0.60 | 0.50 | 72.00 | | |
| | Infront Of Little wonder | | 2 | 80.00 | 0.60 | 0.50 | 48.00 | | |
| | Basic rate | | | | | | | 302.00 | |
| | Area weightage 6% | | | | | | | 18.12 | |
| | | | | | | | 423.00 | 320.12 | 135410.76 |
| 6 | KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Bed Concrete | Cum | | | | | | | |
| | Bck Side Road of Fort House Apt | | 1 | 100.00 | 1.10 | 0.15 | 16.50 | | |
| | Culvert | | 2 | 6.50 | 1.6 | 0.15 | 3.12 | | |
| | Basic rate | | | | | | | 5046.00 | |
| | Area weightage 6% | | | | | | | 302.76 | |
| | | | | | | | 19.62 | 5348.76 | 104942.67 |
| 7 | Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | **Bottom Raft** | Cum | | | | | | | |
| | Bck Side Road of Fort House Apt | | 1.00 | 100.00 | 0.90 | 0.15 | 13.50 | | |
| | Culvert | | 2.00 | 6.50 | 1.40 | 0.25 | 4.55 | | |
| | **Walls** | | | | | | | | |
| | Bck Side Road of Fort House Apt | | 2.00 | 100.00 | 0.15 | 0.60 | 18.00 | | |
| | Culvert | | 4.00 | 6.50 | 0.25 | 1.00 | 6.50 | | |
| | Basic rate | | | | | | | 10408.00 | |
| | Area weightage 6% | | | | | | | 624.48 | |
| | | | | | | | 42.55 | 11032.48 | 469432.02 |
| 8 | KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | **Consider 50Kgs/cum for Drain** | Tonne | | 31.50 | 0.050 | -- | 1.58 | | |
| | **Consider 80Kgs/cum for Culvert** | Tonne | | 11.05 | 0.080 | -- | 0.89 | | |
| | **Basic rate** | | | | | | | 60607.00 | |
| | **Area weightage 6%** | | | | | | | 3636.42 | |
| | | | | | | | 2.47 | 64243.42 | 158681.25 |

Scanned by CamScanner

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | | |
| | Cover Slab | Sqm | | | | | | | | |
| | Bck Side Road of Fort House Apt | | 1.00 | 100.00 | 0.90 | -- | 90.00 | | | |
| | Amco layout 1st main(impact college opp) | | 1.00 | 150.00 | 0.90 | -- | 135.00 | | | |
| | | | | | | | | | | |
| | | | | | | | **225.00** | 1738.00 | **391050.00** | |
| 10 | Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | | |
| | Cuivert | | | | | | | | | |
| | | | 2.00 | 6.50 | 1.50 | -- | 19.50 | | | |
| | | | | | | | **19.50** | 4951.00 | **96544.50** | |
| 11 | KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications. MORTH / Chapter 3(P.No.147, I.No.19.56 of PW,P&IWTD S.R 2016-17) | | | | | | | | | |
| | Road Portion | | | | | | | | | |
| | Infront Of Little wonder | | 1.00 | 80.00 | 6.00 | -- | 480.00 | | | |
| | Beside Little Wonders | | 1.00 | 120.00 | 6.00 | -- | 720.00 | | | |
| | Basic rate | | | | | | | 29.00 | | |
| | Area weightage 6% | | | | | | | 1.74 | | |
| | | | | | | | **1200.00** | **30.74** | **36888.00** | |
| 12 | KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17) | | | | | | | | | |
| | **Road Portion** | Cum | | | | | | | | |
| | **Bad Reaches** | | 9 | 2.00 | 2.00 | 0.23 | 8.28 | | | |
| | | | 8 | 1.50 | 2.50 | 0.23 | 6.90 | | | |
| | | | 13 | 1.00 | 1.20 | 0.23 | 3.59 | | | |
| | Basic rate | | | | | | | 46.00 | | |
| | Area weightage 6% | | | | | | | 2.76 | | |
| | | | | | | | **18.77** | **48.76** | **915.13** | |
| 13 | KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17) | | | | | | | | | |
| | **Bad Reaches** | Cum | | | | | | | | |
| | Infront Of Little wonder | | 1 | 80.00 | 6.00 | 0.23 | 110.40 | | | |
| | Beside Little Wonders | | 1 | 120.00 | 6.00 | 0.23 | 165.60 | | | |
| | | | 9 | 2.00 | 2.00 | 0.23 | 8.28 | | | |
| | | | 8 | 1.50 | 2.50 | 0.23 | 6.90 | | | |
| | | | 13 | 1.00 | 1.20 | 0.23 | 3.59 | | | |
| | Basic rate | | | | | | | 1668.00 | | |
| | Area weightage 6% | | | | | | | 100.08 | | |
| | | | | | | | **294.77** | **1768.08** | **521173.41** | |
| 14 | KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17) | | | | | | | | | |
| | **Bad Reaches** | Cum | | | | | | | | |
| | **Infront Of Little wonder** | | 1 | 80.00 | 6.00 | -- | 480.00 | | | |
| | **Beside Little Wonders** | | 1 | 120.00 | 6.00 | -- | 720.00 | | | |
| | | | 9 | 2.00 | 2.00 | -- | 36.00 | | | |
| | | | 8 | 1.50 | 2.50 | -- | 30.00 | | | |
| | | | 13 | 1.00 | 1.20 | -- | 15.60 | | | |
| | **Basic rate** | | | | | | | 26.00 | | |
| | **Area weightage 6%** | | | | | | | 1.56 | | |

Scanned by CamScanner

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 15 | KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17) | | | | | | | 1281.60 | 27.56 | 35320.90 |
| | Road Portion | Sqm | | | | | | | | |
| | Bck Side Road of Fort House Apt | | 1 | 100.00 | 4.50 | – | | 450.00 | | |
| | 3rd Cross Road in 8th Mn | | 1 | 100.00 | 5.00 | – | | 500.00 | | |
| | KM narayanappa layout cross road1 | | 1 | 110.00 | 5.20 | – | | 572.00 | | |
| | KM narayanappa layout cross road2 | | 1 | 115.00 | 5.30 | – | | 609.50 | | |
| | Amco layout 1st main(impact college opp) | | 1 | 150.00 | 8.20 | – | | 1230.00 | | |
| | | | | | | | | | | |
| | Deduct prime coat | | | | | | | 3361.50 | | |
| | Basic rate | | | | | | | -81.60 | | |
| | | | | | | | | | 3.00 | |
| | Area weightage 6% | | | | | | | | 0.18 | |
| | | | | | | | | 3279.90 | 3.18 | 10430.08 |
| 16 | KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17) | | | | | | | | | |
| | Road Portion | Sqm | | | | | | | | |
| | shanbog narayanappa layout | | | | | | | | | |
| | For Laying DBM | | | | | | | | | |
| | Infront Of Little wonder | | 1 | 80.00 | 6.00 | – | | 480.00 | | |
| | Beside Little Wonders | | 1 | 120.00 | 6.00 | – | | 720.00 | | |
| | For Laying BC | | | | | | | | | |
| | Bck Side Road of Fort House Apt | | 1 | 100.00 | 4.50 | – | | 450.00 | | |
| | 3rd Cross Road in 8th Mn | | 1 | 100.00 | 5.00 | – | | 500.00 | | |
| | Infront Of Little wonder | | 1 | 80.00 | 6.00 | – | | 480.00 | | |
| | Beside Little Wonders | | 1 | 120.00 | 6.00 | – | | 720.00 | | |
| | KM narayanappa layout cross road1 | | 1.00 | 110.00 | 5.20 | – | | 572.00 | | |
| | KM narayanappa layout cross road2 | | 1.00 | 115.00 | 5.30 | – | | 609.50 | | |
| | Amco layout 1st main(impact college opp) | | 1.00 | 150.00 | 8.20 | – | | 1230.00 | | |
| | Basic rate | | | | | | | | 12.00 | |
| | Area weightage 6% | | | | | | | | 0.72 | |
| | | | | | | | | 5761.50 | 12.72 | 73286.28 |
| | | | | | | | | | | |
| 17 | KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH table 500-10 complete in all respects complete as per specifications.. MORTH Specification No. 507 - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No.163 of I.No.21.17.6 in PW,P&IWTD S.R 2016-17) | | | | | | | | | |
| | For Laying DBM | Cum | | | | | | | | |
| | Infront Of Little wonder | | 1 | 80.00 | 6.00 | 0.05 | | 24.00 | | |
| | Beside Little Wonders | | 1 | 120.00 | 6.00 | 0.05 | | 36.00 | | |
| | Basic rate | | | | | | | | 6717.00 | |
| | Area weightage 6% | | | | | | | | 403.02 | |
| | | | | | | | | 60.00 | 7120.02 | 427201.20 |
| | | | | | | | | | | |
| 18 | KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17) | | | | | | | | | |
| | Road Portion | Cum | | | | | | | | |
| | Bck Side Road of Fort House Apt | | 1 | 100.00 | 4.50 | 0.04 | | 18.00 | | |
| | 3rd Cross Road in 8th Mn | | 1 | 100.00 | 5.00 | 0.04 | | 20.00 | | |
| | Infront Of Little wonder | | 1 | 80.00 | 6.00 | 0.04 | | 19.20 | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Beside Little Wonders | | | | | | | | |
| | KM narayanappa layout cross road1 | | 1 | 120.00 | 6.00 | 0.04 | 28.80 | | |
| | KM narayanappa layout cross road2 | | 1 | 110.00 | 5.20 | 0.04 | 22.88 | | |
| | Amco layout 1st main(impact college opp) | | 1 | 115.00 | 5.30 | 0.04 | 24.38 | | |
| | Basic rate | | 1 | 150.00 | 8.20 | 0.04 | 49.20 | | |
| | Area weightage 6% | | | | | | | 7659.00 | |
| | | | | | | | | 459.54 | |
| | | | | | | | **182.46** | **8118.54** | **1481308.81** |
| 19 | KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Edge line | Sqm | 2 | 775.00 | 0.10 | -- | 155.00 | | |
| | Basic rate | | | | | | | 512.00 | |
| | Area weightage 6% | | | | | | | 30.72 | |
| | | | | | | | **155.00** | **542.72** | **84121.60** |
| | | | | | | | | **Sub Total** | **4899385.160** |
| | | | | | | | Preperation of DPR And Project management Consultancy Charges(2% of estimated cost) | | 100000 |
| | | | | | | | | Miscellaneous and rounding off | 614.84 |
| | | | | | | | | **Total** | **5000000.00** |
| | | | | | | | | **RUPEES FIFTY LAKHS ONLY** | |

**Certificate.**

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer
Byatarayanapura Division
Yalahanka Zone, B.B.M.P.
Bangalore-560092

Technical Sanction
Accorded For Rs 50: Lakhonly
Vide G.O. No. P3158.....
CEN. NO. 39..... Dt.. 29/01/18

JA

Scanned by CamScanner

# 8)IMPROVEMENTS TO ROADS AND DRAINS IN BALAJI LAYOUT AT KODIGEHALLI WARD NO.08 (KODIGEHALLI), KODIGEHALLI SUB DIVISION

Scanned by CamScanner

**BRUHAT BANGALORE MAHANAGARA PALIKE**
**PREPARATION OF DPR FOR PACKAGE NO. 03**
**(PACKAGE CONSISTS OF 21 WORKS IN WARD NO 08 AND WARD NO 09)**
**IMPROVEMENTS TO ROADS AND DRAINS IN BALAJI LAYOUT AT KODIGEHALLI WARD NO.08**

| Sl. No. | Description of work | Unit | No. | Length m | Breadth m | Depth m | Quantity | Rate In Rs. | Amount In Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. (P.No. 136, I.No. 18.18 of CSR 2015-16) (P.No.137, I.No.18.27 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Balaji layout | Cum | | | | | | | |
| | Culvert slabs | | 2 | 5.00 | 2.00 | 0.15 | 3.00 | | |
| | 11th cross culvert | | 1 | 9.00 | 2.50 | 0.15 | 3.38 | | |
| | Basic rate | | | | | | | 374 | |
| | Area weightage 6% | | | | | | | 22.44 | |
| | Loading & Unloading charges | | | | | | | 116.75 | |
| | | | | | | | **6.38** | **513.19** | **3271.59** |
| 2 | KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Balaji layout | Cum | | | | | | | |
| | 6th cross | | 1 | 130.00 | 1.10 | 0.90 | 128.70 | | |
| | 5th main road | | 1 | 180.00 | 1.10 | 1.00 | 198.00 | | |
| | 6th main to 11th cross | | 1 | 185.00 | 1.10 | 0.85 | 172.98 | | |
| | 11th cross | | 1 | 190.00 | 1.25 | 1.00 | 236.31 | | |
| | Culvert | | 1 | 8.40 | 1.40 | 1.05 | 12.35 | | |
| | | | 2 | 5.00 | 1.30 | 1.05 | 13.65 | | |
| | 11th cross | | 1 | 9.00 | 1.40 | 1.05 | 13.23 | | |
| | Basic rate | | | | | | | 82.00 | |
| | Area weightage 6% | | | | | | | 4.92 | |
| | | | | | | | **775.22** | **86.92** | **67381.73** |
| 3 | Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms.(Refer Table. Page No.139) | | | | | | | | |
| | Considered same Qty vide I.No.2 | Cum | | | | | 775.22 | | |
| | Average Weight of Earth (1.28 Ton/cum, Basic rate Rs.2.00 Tonne/Km.) For 15 Kms = (2.50 x 1.28 x 15)/- | | 48 | | | | | | |
| | KSRRB M100-1 Add loading & unloading (P.No.130,I.No.17.1) | | 68 | | | | | | |
| | Total rate per Cum | | 116 | | | | | 116.00 | |
| | Basic rate | | | | | | | 6.96 | |
| | Area weightage 6% | | | | | | **775.2155** | **122.96** | **95320.50** |
| 4 | KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Balaji layout | Cum | | | | | | | |
| | 6th cross | | 1 | 130.00 | 1.10 | 0.15 | 21.45 | | |
| | 5th main road | | 1 | 180.00 | 1.10 | 0.15 | 29.70 | | |
| | 6th main to 11th cross | | 1 | 185.00 | 1.10 | 0.15 | 30.53 | | |
| | 11th cross | | 1 | 190.00 | 1.25 | 0.15 | 35.63 | | |
| | Culvert | | 1 | 8.40 | 1.40 | 0.15 | 1.76 | | |
| | | | 2 | 5.00 | 1.30 | 0.15 | 1.95 | | |
| | 11th cross | | 1 | 9.00 | 1.40 | 0.15 | 1.89 | | |
| | Basic rate | | | | | | | 5046.00 | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Area weightage 6% | | | | | | | 302.76 | |
| | | | | | | | | | |
| | | | | | | | | | |
| 5 | Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17) | | | | | | **122.90** | **5348.76** | **657384.00** |
| | **Bottom Raft** | Cum | | | | | | | |
| | Balaji layout | | | | | | | | |
| | 6th cross | | 1.00 | 130.00 | 0.90 | 0.15 | 17.55 | | |
| | 5th main road | | 1.00 | 180.00 | 0.90 | 0.15 | 24.30 | | |
| | 6th main to 11th cross | | 1.00 | 185.00 | 0.90 | 0.15 | 24.98 | | |
| | 11th cross | | 1.00 | 190.00 | 1.05 | 0.15 | 29.93 | | |
| | Culvert | | 1.00 | 8.40 | 1.40 | 0.25 | 2.94 | | |
| | | | 2.00 | 5.00 | 1.30 | 0.25 | 3.25 | | |
| | | | 1.00 | 9.00 | 1.40 | 0.25 | 3.15 | | |
| | **Walls** | | | | | | | | |
| | 6th cross | | 2.00 | 130.00 | 0.15 | 0.60 | 23.40 | | |
| | 5th main road | | 2.00 | 180.00 | 0.15 | 0.70 | 37.80 | | |
| | 6th main to 11th cross | | 2.00 | 185.00 | 0.15 | 0.75 | 41.63 | | |
| | 11th cross | | 2.00 | 190.00 | 0.15 | 0.70 | 39.62 | | |
| | Culvert | | 2.00 | 8.40 | 0.25 | 0.60 | 2.52 | | |
| | | | 4.00 | 5.00 | 0.25 | 0.60 | 3.00 | | |
| | | | 2.00 | 9.00 | 0.25 | 0.60 | 2.70 | | |
| | Basic rate | | | | | | | 10408.00 | |
| | Area weightage 6% | | | | | | | 624.48 | |
| | | | | | | | **256.75** | **11032.48** | **2832589.24** |
| | | | | | | | | | |
| 6 | KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Consider 50Kgs/cum for RCC Drain Qty | Tonne | | 239.19 | 0.050 | -- | 11.96 | | |
| | Consider 80Kgs/cum for RCC Drain Qty | Tonne | | 17.56 | 0.080 | -- | 1.41 | | |
| | Basic rate | | | | | | | 60607.00 | |
| | Area weightage 6% | | | | | | | 3636.42 | |
| | | | | | | | **13.37** | **64243.42** | **858934.53** |
| | | | | | | | | | |
| 7 | Providing and fixing **RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Cover Slab | Sqm | 1.00 | 130.00 | 0.90 | -- | 117.00 | | |
| | 6th cross | | | | | | **117.00** | 1738.00 | **203346.00** |
| | | | | | | | | | |
| 8 | Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Cuivert | | 1.00 | 8.40 | 1.40 | -- | 11.76 | | |
| | | | 2.00 | 5.00 | 1.20 | -- | 12.00 | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 1.00 | 9.00 | 1.40 | – | 12.60 | | |
| | | | | | | | 36.36 | 4951.00 | 180018.36 |
| | | | | | | | | | |
| | | | | | | | | Sub Total | 4898245.948 |
| | | | | | | | | Preperation of DPR And Project management Consultancy Charges(2% of estimated cost) | 100000 |
| | | | | | | | | Miscellaneous and rounding off | 1754.05 |
| | | | | | | | | Total | 5000000.00 |
| | | | | | | | | RUPEES FIFTY LAKHS ONLY | |

**Certificate.**

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer
Byatarayanapura Division
Yelahanka Zone, B.B.M.P
Bangalore-560092

Technical Sanction
Accounts for RS 50 - w/ lacs only
Head of A/C P3158
CER NO 40 Dt: 29/01/18

TA ... CE (YNK)

Scanned by CamScanner

# 9)IMPROVEMENTS TO ROADS AND DRAINS TO LOTTEGOLLAHALLI AT KODIGEHALLI WARD NO.08 (KODIGEHALLI), KODIGEHALLI SUB DIVISION

Scanned by CamScanner

**BRUHAT BANGALORE MAHANAGARA PALIKE**
**PREPARATION OF DPR FOR PACKAGE NO. 03**
**(PACKAGE CONSISTS OF 21 WORKS IN WARD NO 08 AND WARD NO 09)**
**IMPROVEMENTS TO ROADS AND DRAINS TO LOTTEGOLLAHALLI AT KODIGEHALLI WARD NO.08**

| Sl. No. | Description of work | Unit | No. | Length m | Breadth m | Depth m | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Lottegollahalli | Cum | | | | | | | |
| | 2nd cross Lottegollahalli(LJ Iyengarbakery) | | 2 | 115.00 | 0.95 | 0.80 | 174.80 | | |
| | 4th Cross road Lhs(RMV cluster) | | 1 | 81.00 | 0.95 | 0.8 | 60.02 | | |
| | 1st cross Rhs | | 2 | 130.00 | 1.10 | 0.75 | 214.50 | | |
| | Culvert | | 4 | 6.00 | 2.00 | 1.00 | 48.00 | | |
| | Basic rate | | | | | | | 82.00 | |
| | Area weightage 6% | | | | | | | 4.92 | |
| | | | | | | | **497.32** | **86.92** | **43227.14** |
| 2 | Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms.(Refer Table. Page No.139) | | | | | | | | |
| | Considered same Qty vide I.No.1+ I.No.11 | Cum | | | | | 576.77 | | |
| | Average Weight of Earth (1.28 Ton/cum, Basic rate Rs.2.00 Tonne/Km.) For 15 Kms = (2.50 x 1.28 x 15)/- | | 48 | | | | | | |
| | KSRRB M100-1 Add loading & unloading (P.No.130,I.No.17.1) | | 68 | | | | | | |
| | Total rate per Cum | | 116 | | | | | | |
| | Basic rate | | | | | | | 116.00 | |
| | Area weightage 6% | | | | | | | 6.96 | |
| | | | | | | | **576.771** | **122.96** | **70919.76** |
| 3 | KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Bed Concrete | Cum | | | | | | | |
| | Lottegollahalli | | | | | | | | |
| | 2nd cross Lottegollahalli(LJ Iyengarbakery) | | 2 | 115.00 | 0.95 | 0.15 | 32.78 | | |
| | 4th Cross road Lhs(RMV cluster) | | 1 | 81.00 | 0.95 | 0.15 | 11.54 | | |
| | 1st cross Rhs | | 2 | 130.00 | 1.10 | 0.15 | 42.90 | | |
| | Culvert | | 4 | 6 | 2 | 0.15 | 7.20 | | |
| | Basic rate | | | | | | | 5046.00 | |
| | Area weightage 6% | | | | | | | 302.76 | |
| | | | | | | | **94.42** | **5348.76** | **505016.55** |
| 4 | KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17) | | | | | | | | |
| | SSM Wall | Cum | | | | | | | |
| | culverts | | 8.00 | 6.00 | 0.60 | 0.85 | 24.48 | | |
| | Basic rate | | | | | | | 4187.00 | |
| | Area weightage 6% | | | | | | | 251.22 | |
| | | | | | | | **24.48** | **4438.22** | **108647.63** |
| 5 | KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17) | | | | | | | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | SSM Wall | Sqm | | | | | | | |
| | culverts | | 8.00 | 6.00 | -- | 0.85 | 40.80 | | |
| | Basic rate | | | | | | | 97.00 | |
| | Area weightage 6% | | | | | | | 5.82 | |
| | | | | | | | **40.80** | **102.82** | **4195.06** |
| 6 | KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Coping | Cum | | | | | | | |
| | culverts | | 8.00 | 6.00 | 0.60 | 0.10 | 2.88 | | |
| | Basic rate | | | | | | | 5441.00 | |
| | Area weightage 6% | | | | | | | 326.46 | |
| | | | | | | | **2.88** | **5767.46** | **16610.28** |
| 7 | Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | **Bottom Raft** | Cum | | | | | | | |
| | **Lottegollahalli** | | | | | | | | |
| | 2nd cross Lottegollahalli(LJ Iyengarbakery) | | 2.00 | 115.00 | 0.75 | 0.15 | 25.88 | | |
| | 4th Cross road Lhs(RMV cluster) | | 1.00 | 81.00 | 0.75 | 0.15 | 9.11 | | |
| | 1st cross Rhs | | 2.00 | 130.00 | 0.90 | 0.15 | 35.10 | | |
| | **Walls** | | | | | | | | |
| | 2nd cross Lottegollahalli(LJ Iyengarbakery) | | 4.00 | 115.00 | 0.15 | 0.60 | 41.40 | | |
| | 4th Cross road Lhs(RMV cluster) | | 2.00 | 81.00 | 0.15 | 0.60 | 14.58 | | |
| | 1st cross Rhs | | 4.00 | 130.00 | 0.15 | 0.60 | 46.80 | | |
| | Basic rate | | | | | | | 10408.00 | |
| | Area weightage 6% | | | | | | | 624.48 | |
| | | | | | | | **172.87** | **11032.48** | **1907157.24** |
| 8 | KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Consider 50Kgs/cum for Drain | Tonne | | 172.87 | 0.050 | -- | 8.65 | | |
| | Basic rate | | | | | | | 60607.00 | |
| | Area weightage 6% | | | | | | | 3636.42 | |
| | | | | | | | **8.65** | **64243.42** | **555705.58** |
| 9 | **Providing and fixing RCC Precast cover slab of 100mm thick** for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Cover Slab | Sqm | | | | | | | |
| | 2nd cross Lottegollahalli(LJ Iyengarbakery) | | 2.00 | 115.00 | 0.75 | -- | 172.50 | | |
| | 4th Cross road Lhs(RMV cluster) | | 1.00 | 81.00 | 0.75 | -- | 60.75 | | |
| | 1st cross Rhs | | 2.00 | 130.00 | 0.90 | -- | 234.00 | | |
| | | | | | | | **467.25** | 1738.00 | **812080.50** |
| 10 | **Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate)** | | | | | | | | |
| | **Culvert** | | 4.00 | 6.00 | 1.80 | -- | 43.20 | | |
| | | | | | | | **43.20** | 4951.00 | **213883.20** |

Scanned by CamScanner

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17) | | | | | | | | | |
| | **Road Portion** | Cum | | | | | | | | |
| | Cross Road 1 | | | | | | | | | |
| | **Bad Reaches** | | 1 | 47.00 | 5.00 | | 235.00 | | | |
| | | | 8 | 2.00 | 2.50 | 0.25 | 58.75 | | | |
| | | | 5 | 2.00 | 2.00 | 0.23 | 9.20 | | | |
| | Basic rate | | 8 | 1.50 | 2.50 | 0.23 | 4.60 | | | |
| | Area weightage 6% | | | | | | 6.90 | | | |
| | | | | | | | | 46.00 | | |
| | | | | | | | | 2.76 | | |
| | | | | | | | **79.45** | **48.76** | | **3873.98** |
| 12 | KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17) | | | | | | | | | |
| | | Cum | | | | | | | | |
| | Cross Road 1 | | | | | | | | | |
| | Bad Reaches | | 1 | 47.00 | 5.00 | 0.23 | 54.05 | | | |
| | | | 8 | 2.00 | 2.50 | 0.23 | 9.20 | | | |
| | | | 5 | 2.00 | 2.00 | 0.23 | 4.60 | | | |
| | Basic rate | | 8 | 1.50 | 2.50 | 0.23 | 6.90 | | | |
| | Area weightage 6% | | | | | | | 1668.00 | | |
| | | | | | | | | 100.08 | | |
| | | | | | | | **74.75** | **1768.08** | | **132163.98** |
| 13 | KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17) | | | | | | | | | |
| | **Bad Reaches** | Cum | | | | | | | | |
| | Cross Road 1 | | | | | | | | | |
| | Bad Reaches | | 1 | 47.00 | 5.00 | -- | 235.00 | | | |
| | | | 8 | 2.00 | 2.50 | -- | 40.00 | | | |
| | | | 5 | 2.00 | 2.00 | -- | 20.00 | | | |
| | Basic rate | | 8 | 1.50 | 2.50 | -- | 30.00 | | | |
| | Area weightage 6% | | | | | | | 26.00 | | |
| | | | | | | | | 1.56 | | |
| | | | | | | | **325.00** | **27.56** | | **8957.00** |
| 14 | KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17) | | | | | | | | | |
| | **Road Portion** | Sqm | | | | | | | | |
| | 3rd cross Devinagar | | 1 | 105.00 | 5.20 | -- | 546.00 | | | |
| | 2nd cross Lottegollahalli | | 1 | 115.00 | 5.70 | -- | 655.50 | | | |
| | | | | | | | **1201.50** | | | |
| | Deduct prime coat | | | | | | -90.00 | | | |
| | Basic rate | | | | | | | 3.00 | | |
| | Area weightage 6% | | | | | | | 0.18 | | |
| | | | | | | | **1111.50** | **3.18** | | **3534.57** |
| 15 | KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17) | | | | | | | | | |
| | **Road Portion** | Sqm | | | | | | | | |
| | For Laying BC | | | | | | | | | |
| | Cross Road 1 | | 1 | 47.00 | 5.00 | -- | 235.00 | | | |
| | 3rd cross Devinagar | | 1 | 105.00 | 5.20 | -- | 546.00 | | | |
| | 2nd cross Lottegollahalli | | 1 | 115.00 | 5.70 | -- | 655.50 | | | |
| | Basic rate | | | | | | | 12.00 | | |
| | Area weightage 6% | | | | | | | 0.72 | | |
| | | | | | | | **1436.50** | **12.72** | | **18272.28** |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 16 | KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Road Portion | Cum | | | | | | | |
| | Cross Road 1 | | 1 | 47.00 | 5.00 | 0.04 | 9.40 | | |
| | 3rd cross Devinagar | | 1 | 105.00 | 5.20 | 0.04 | 21.84 | | |
| | 2nd cross Lottegollahalli | | 1 | 115.00 | 5.70 | 0.04 | 26.22 | | |
| | Basic rate | | | | | | | 7659.00 | |
| | Area weightage 6% | | | | | | | 459.54 | |
| | | | | | | | 57.46 | 8118.54 | 466491.31 |
| | | | | | | | | | |
| 17 | KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Edge line | Sqm | 2 | 267.00 | 0.10 | -- | 53.40 | | |
| | Basic rate | | | | | | | 512.00 | |
| | Area weightage 6% | | | | | | | 30.72 | |
| | | | | | | | 53.40 | 542.72 | 28981.25 |
| | | | | | | | | Sub Total | 4899717.312 |
| | Preperation of DPR And Project management Consultancy Charges(2% of estimated cost) | | | | | | | | 100000 |
| | Miscellaneous and rounding off | | | | | | | | 282.69 |
| | Total | | | | | | | | 5000000.00 |
| | RUPEES FIFTY LAKHS ONLY | | | | | | | | |

**Certificate.**

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

JE

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer
Byatarayanapura Division
Yalahanka Zone, B.B.M.P.
Bangalore-560092

Technical Sanction
Accordance For RS 50 : 00 lakhs only
Head of A/C P3158
CER NO : 41 Dt: 29/01/18

TA CE (YNK)

Scanned by CamScanner

# 10) IMPROVEMENTS TO ROADS AND DRAINS AT B B NAGAR AT WARD NO.08 (KODIGEHALLI), KODIGEHALLI SUB DIVISION

Scanned by CamScanner

# BRUHAT BANGALORE MAHANAGARA PALIKE
## PREPARATION OF DPR FOR PACKAGE NO. 03
## (PACKAGE CONSISTS OF 21 WORKS IN WARD NO 08 AND WARD NO 09)
## IMPROVEMENTS TO ROADS AND DRAINS AT B B NAGAR AT WARD NO.08 KODIGEHALLI

| Sl. No. | Description of work | Unit | No. | Length m | Breadth m | Depth m | Quantity | Rate in Rs. | Amount in Rs. |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Removing and resetting of footpath slab (P.No.265, I.No.37.56 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | glass factory backside road | | 2 | 40.00 | 0.75 | -- | 60.00 | | |
| | Kodigehalli main road glass hornet to shahid motors | | 1 | 260.00 | 1.20 | -- | 312.00 | | |
| | Damaged slabs/missing 30% | | | | | | -111.60 | | |
| | Basic rate | | | | | | | 125.00 | |
| | Area weightage 6% | | | | | | | 7.50 | |
| | | | | | | | **260.40** | **132.50** | **34503.00** |
| 2 | KSRRB M200-15.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. iii) Dismantling Stone Masonry.B. Rubble stone masonry in cement mortar. MORTH Specification No. 202 | | | | | | | | |
| | Kodigehalli main road glass hornet to shahid motors | | 2 | 95.00 | 0.45 | 0.8 | 68.40 | | |
| | Basic rate | | | | | | | 244 | |
| | Area weightage 6% | | | | | | | 14.64 | |
| | Loading & Unloading charges | | | | | | | 116.75 | |
| | | | | | | | **68.40** | **375.39** | **25676.68** |
| 3 | KSRRB M200-12.2. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means :B. Cement Concrete Grade M-15 & M-20. MORTH Specification No. 202. (P.No. 136, I.No. 18.18 of CSR 2015-16) (P.No.137, I.No.18.27 of PW,P&IWTD SR 2015-16) | | | | | | | | |
| | concrete drain | Cum | | | | | | | |
| | near ganesh Temple | | 1 | 31.00 | 0.90 | 0.15 | 4.19 | | |
| | | | 1 | 20.00 | 0.90 | 0.15 | 2.70 | | |
| | Basic rate | | | | | | | 374 | |
| | Area weightage 6% | | | | | | | 22.44 | |
| | Loading & Unloading charges | | | | | | | 116.75 | |
| | | | | | | | **6.89** | **513.19** | **3533.31** |
| 4 | KSRRB M300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface levelled and sides neately dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specification. MORTH / Chapter 3 (P.No.142, I.No.19.1 of PW, P&IWTD SR 2016-17) | | | | | | | | |
| | Desilt | Cum | | | | | | | |
| | near ganesh Temple | | 1 | 31.00 | 1.10 | 0.90 | 30.69 | | |
| | | | 1 | 20.00 | 1.10 | 0.90 | 19.80 | | |
| | SWD up to Service station | | 1 | 160.00 | 0.90 | 1.75 | 252.00 | | |
| | glass factory backside road | | 2 | 40.00 | 0.95 | 0.89 | 67.26 | | |
| | Kodigehalli main road glass hornet to shahid motors | | 1.00 | 260.00 | 0.60 | 0.65 | 101.40 | | |
| | dee enclave to trio school(kodigehalli mn road) | | 1 | 50.00 | 1.10 | 0.88 | 48.40 | | |
| | Culvert | | 1 | 4.00 | 1.60 | 1.20 | 7.68 | | |
| | | | 1 | 7.00 | 2.00 | 1.45 | 20.30 | | |
| | Basic rate | | | | | | | 82.00 | |
| | Area weightage 6% | | | | | | | 4.92 | |
| | | | | | | | **547.53** | **86.92** | **47591.31** |

Scanned by CamScanner

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | Lead for disposal of earth shall be payable at Carriage rates (Lead & Lift) by mechanical means including loading and unloading up to 15kms.(Refer Table. Page No.139) | | | | | | | | | |
| | Considered same Qty vide I.No.4+I.No.17 | Cum | | | | | 589.21 | | | |
| | Average Weight of Earth (1.28 Ton/cum, Basic rate Rs.2.00 Tonne/Km.) For 15 Kms = (2.50 x 1.28 x 15)/- | | 48 | | | | | | | |
| | KSRRB M100-1 Add loading & unloading (P.No.130,I.No.17.1) | | 68 | | | | | | | |
| | Total rate per Cum | | 116 | | | | | | | |
| | Basic rate | | | | | | | 116.00 | | |
| | Area weightage 6% | | | | | | | 6.96 | | |
| | | | | | | | 589.205 | 122.96 | 72448.65 | |
| 6 | KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @ 0.892 cum and fine aggregates @ 0.465 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.2 of PW,P&IWTD S.R 2016-17) | | | | | | | | | |
| | Bed Concrete | Cum | | | | | | | | |
| | near ganesh Temple | | 1 | 31.00 | 1.10 | 0.15 | 5.12 | | | |
| | | | 1 | 20.00 | 1.10 | 0.15 | 3.30 | | | |
| | glass factory backside road | | 2 | 40.00 | 0.95 | 0.15 | 11.40 | | | |
| | dee enclave to trio school(kodigehalli mn road) | | 1 | 50.00 | 1.10 | 0.15 | 8.25 | | | |
| | Culvert | | 1 | 4.00 | 1.60 | 0.15 | 0.96 | | | |
| | | | 1 | 7.00 | 2.00 | 0.15 | 2.10 | | | |
| | For Road | | | | | | | | | |
| | near ganesh Temple | | 1 | 23.00 | 2.50 | 0.15 | 8.63 | | | |
| | | | 1.00 | 18.00 | 3.00 | 0.15 | 8.10 | | | |
| | Basic rate | | | | | | | 5046.00 | | |
| | Area weightage 6% | | | | | | | 302.76 | | |
| | | | | | | | 47.85 | 5348.76 | 255938.17 | |
| 7 | Providing laying plain/ reinforced cement concrete M20 Grade for Box Drain walls of thickness 10cm to 20cm including centering shuttering for work etc. complete as per approved drawing and design MORTH specification No. 1500, 1700, 2200. (P.No.265, I.No.37.59.2 of PW, P&IWTD SR 2016-17) | | | | | | | | | |
| | **Bottom Raft** | Cum | | | | | | | | |
| | near ganesh Temple | | 1.00 | 31.00 | 0.90 | 0.15 | 4.19 | | | |
| | | | 1.00 | 20.00 | 0.90 | 0.15 | 2.70 | | | |
| | glass factory backside road | | 2.00 | 40.00 | 0.75 | 0.15 | 9.00 | | | |
| | dee enclave to trio school(kodigehalli mn road) | | 1.00 | 50.00 | 0.90 | 0.15 | 6.75 | | | |
| | Culvert | | 1.00 | 4.00 | 1.40 | 0.25 | 1.40 | | | |
| | | | | | | | | | | |
| | **Walls** | | | | | | | | | |
| | Bottom Raft | | | | | | | | | |
| | near ganesh Temple | | 2.00 | 31.00 | 0.15 | 0.60 | 5.58 | | | |
| | 0.00 | | 2.00 | 20.00 | 0.15 | 0.60 | 3.60 | | | |
| | glass factory backside road | | 4.00 | 40.00 | 0.15 | 0.59 | 14.04 | | | |
| | dee enclave to trio school(kodigehalli mn road) | | 2.00 | 50.00 | 0.15 | 0.70 | 10.50 | | | |
| | Culvert | | 2.00 | 4.00 | 0.25 | 0.80 | 1.60 | | | |
| | Basic rate | | | | | | | 10408.00 | | |
| | Area weightage 6% | | | | | | | 624.48 | | |
| | | | | | | | 59.36 | 11032.48 | 654832.85 | |
| 8 | KSRB - 4.9.2: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, palcing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3. (P.No.17, I.No.4.46.3 of PW, P&IWTD SR 2016-17) | | | | | | | | | |
| | Consider 50Kgs/cum for RCC drain | Tonne | | 56.36 | 0.050 | -- | 2.82 | | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Consider 80Kgs/cum for RCC drain | Tonne | | 3.00 | 0.080 | -- | 0.24 | | |
| | Basic rate | | | | | | | 60607.00 | |
| | Area weightage 6% | | | | | | | 3636.42 | |
| | | | | | | | 2.82 | 64243.42 | 181166.44 |
| 9 | KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17)(available stones) | | | | | | | | |
| | SSM Wall | Cum | | | | | | | |
| | Kodigehalli main road glass hornet to shahid motors | | 2.00 | 80.00 | 0.45 | 0.60 | 43.20 | | |
| | | | | | | | 43.20 | 2784.62 | 120295.584 |
| 10 | KSRB 5.2-3: Providing and constructing granite size stone masonry in foundation cement mortor 1:6, stone hammered dressed in courses not less than 20cms high, bond stones at 2m. apart in each course including cost of materaials, labour, curing complete as per specifications. Specifcation No. KBS 5.1.13. (P.No.23, I.No.5.6 of PW, P&IWTD S.R 2016-17) | | | | | | | | |
| | SSM Wall | Cum | | | | | | | |
| | Kodigehalli main road glass hornet to shahid motors | | 2.00 | 90.00 | 0.45 | 0.45 | 36.45 | | |
| | Culvert | | 2.00 | 7.00 | 0.60 | 0.80 | 6.72 | | |
| | Basic rate | | | | | | | 4187.00 | |
| | Area weightage 6% | | | | | | | 251.22 | |
| | | | | | | | 43.17 | 4438.22 | 191597.957 |
| 11 | KSRB 15.1.1 Providing flush pointing to square rubble, course or uncoursed stone masonry with cement mortar 1:3, 20mm deep, after raking joints to depth of 20mm nicely lining, including cost of materials, labour, curing complete as per specifications. (P.No.113, I.No.15.1 of PW, P&IWTD S.R 2016-17) | | | | | | | | |
| | SSM Wall | Sqm | | | | | | | |
| | Kodigehalli main road glass hornet to shahid motors | | 2.00 | 95.00 | -- | 1.05 | 199.50 | | |
| | Culvert | | 2.00 | 7.00 | -- | 0.80 | 11.20 | | |
| | Basic rate | | | | | | | 97.00 | |
| | Area weightage 6% | | | | | | | 5.82 | |
| | | | | | | | 210.70 | 102.82 | 21664.17 |
| 12 | KSRB 4-1.6: Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.459 cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. (P.No.12, I.No.4.6 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Coping | Cum | 2.00 | 95.00 | 0.45 | 0.075 | 6.41 | | |
| | Kodigehalli main road glass hornet to shahid motors | | 2.00 | 7.00 | 0.60 | 0.10 | 0.84 | | |
| | Culvert | | | | | | | 5441.00 | |
| | Basic rate | | | | | | | 326.46 | |
| | Area weightage 6% | | | | | | 7.25 | 5767.46 | 41828.50 |
| 13 | Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Missing /damaged slabs | | -- | -- | -- | -- | 111.60 | | |
| | near ganesh Temple | | 1.00 | 31.00 | 0.90 | -- | 27.90 | | |
| | glass factory backside road | | 1.00 | 20.00 | 0.90 | -- | 18.00 | | |
| | SWD up to Service station | | 2.00 | 40.00 | 0.75 | -- | 60.00 | | |
| | dee enclave to trio | | 1.00 | 160.00 | 1.80 | -- | 288.00 | | |
| | school(kodigehalli mn road) | | 1.00 | 50.00 | 0.90 | -- | 45.00 | | |
| | For Balaji Layout | | | | | | | | |
| | 5th main road | | 1.00 | 180.00 | 0.90 | -- | 162.00 | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 6th main to 11th cross | | 1.00 | 185.00 | 0.90 | -- | 166.50 | | |
| | 11th cross | | 1.00 | 190.00 | 1.05 | -- | 199.50 | | |
| | | | | | | | **1078.50** | 1738.00 | **1874433.00** |
| 14 | Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete. (P.No.25, I.No.5.30 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | For Balaji Layout | No. | | | | | | | |
| | 5th main road | | 1.00 | 180.00 | -- | /0.45 | 400.00 | | |
| | 6th main to 11th cross | | 1.00 | 185.00 | -- | /0.45 | 411.00 | | |
| | 11th cross | | 1.00 | 190.00 | -- | /0.45 | 422.00 | | |
| | 6th cross | | 1.00 | 130.00 | -- | /0.45 | 289.00 | | |
| | Basic rate | | | | | | | 313.00 | |
| | Area weightage 6% | | | | | | | 18.78 | |
| | | | | | | | **1522.00** | **331.78** | **504969.16** |
| 15 | KSRRB 800-1. Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications. MORTH Chapter 8 (P.No.182, I.No. 24.1 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | For Balaji Layout | Sqm | | | | | | | |
| | 5th main road | | 1.00 | 180.00 | -- | 0.35 | 63.00 | | |
| | 6th main to 11th cross | | 1.00 | 185.00 | -- | 0.35 | 64.75 | | |
| | 11th cross | | 1.00 | 190.00 | -- | 0.35 | 66.50 | | |
| | 6th cross | | 1.00 | 130.00 | -- | 0.35 | 45.50 | | |
| | Basic rate | | | | | | | 60.00 | |
| | Area weightage 6% | | | | | | | 3.60 | |
| | | | | | | | **239.75** | **63.60** | **15248.10** |
| 16 | Providing and fixing RCC Precast cover slab of 250mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge. (Data Rate) | | | | | | | | |
| | Cuivert | | 1.00 | 4.00 | 1.40 | -- | 5.60 | | |
| | | | 1.00 | 7.00 | 1.80 | -- | 12.60 | | |
| | | | | | | | **18.20** | 4951.00 | **90108.20** |
| 17 | KSRRB M300-14. Excavation for roadwork in soil with hydraulic excavator of 0.90 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to embankment location and complete as per specifications. MORTH Specification No.301 (P.No.143, I.No.19.14 of PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | **Road Portion** | Cum | | | | | | | |
| | near ganesh Temple | | 1.00 | 23.00 | 2.50 | 0.25 | 14.38 | | |
| | | | 1.00 | 18.00 | 3.00 | 0.25 | 13.50 | | |
| | **Bad Reaches** | | | | | | | | |
| | | | 8 | 2.00 | 2.50 | 0.23 | 9.20 | | |
| | | | 5 | 2.00 | 2.00 | 0.23 | 4.60 | | |
| | | | | | | | | 46.00 | |
| | Basic rate | | | | | | | 2.76 | |
| | Area weightage 6% | | | | | | **41.68** | **48.76** | **2032.07** |
| 18 | Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. - M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.46cum) ((P.No.177, I.No.22.6.1 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | **Road Portion** | Cum | | | | | | | |
| | **near ganesh Temple** | | 1.00 | 23.00 | 2.50 | 0.10 | 5.75 | | |
| | | | 1.00 | 18.00 | 3.00 | 0.10 | 5.40 | | |

Scanned by CamScanner

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | bb nagar bus stop opp rd | | | | | | | | | |
| | | | 1.00 | 11.00 | 3.70 | 0.10 | 4.07 | | | |
| | | | 1.00 | 7.50 | 2.50 | 0.10 | 1.88 | | | |
| | Basic rate | | 1.00 | 15.00 | 2.00 | 0.10 | 3.00 | | | |
| | Area weightage 6% | | | | | | | | 5866.00 | |
| | | | | | | | | | 351.96 | |
| 19 | Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery, Screed Vibratory, Power Floater, blade and disc etc., with all lead and lift.(P.No.177, I.No.22.7 of PW, P&IWTD SR 2016-17) | | | | | | 20.10 | | 6217.96 | 124949.91 |
| | Road Portion | Sqm | | | | | | | | |
| | near ganesh Temple | | 1.00 | 23.00 | 2.50 | -- | 57.50 | | | |
| | bb nagar bus stop opp rd | | 1.00 | 18.00 | 3.00 | -- | 54.00 | | | |
| | | | 1.00 | 11.00 | 3.70 | -- | 40.70 | | | |
| | | | 1.00 | 7.50 | 2.50 | -- | 18.75 | | | |
| | Basic rate | | 1.00 | 15.00 | 2.00 | -- | 30.00 | | | |
| | Area weightage 6% | | | | | | | | 90.00 | |
| | | | | | | | | | 5.40 | |
| 20 | KSRRB M 400-17, Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechaniqal mix plant carriage ' of mixed Material by tipper to site, laying in uniform layers with paver in sub- base/ base course on well prepared surface and compacting with vibratory roller to achieve the desired density.complete as per specifications. MORTH Specification No. 406 (P.No.158, I.No.20.18 of PW,P&IWTD SR 2016-17) | | | | | | 200.95 | | 95.40 | 19170.63 |
| | **Bad Reaches** | Cum | | | | | | | | |
| | | | 8 | 2.00 | 2.50 | 0.23 | 9.20 | | | |
| | | | 5 | 2.00 | 2.00 | 0.23 | 4.60 | | | |
| | Basic rate | | | | | | | | 1668.00 | |
| | Area weightage 6% | | | | | | | | 100.08 | |
| | | | | | | | 13.80 | | 1768.08 | 24399.50 |
| 21 | KSRRB M 500-6, Providing and applying primer coat with SS bitumen emulsion on prepared surface of granular Base such as WBM WMM including clearing of road surface and spraying primer at the rate of 0.60 kglsqm using mechanical means complete as per specifications. As per MORTH specification clause No. 502 (P.No.161, I.No.21.6 of PW,P&IWTD SR 2016-17) | | | | | | | | | |
| | **Bad Reaches** | Cum | | | | | | | | |
| | | | 8 | 2.00 | 2.50 | -- | 40.00 | | | |
| | | | 5 | 2.00 | 2.00 | -- | 20.00 | | | |
| | Basic rate | | | | | | | | 26.00 | |
| | Area weightage 6% | | | | | | | | 1.56 | |
| | | | | | | | 60.00 | | 27.56 | 1653.60 |
| 22 | KSRRB 500-2: Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatement including cost of all materials, labour, HOM of machineries complete as per specifications. MORTH Spec, Chapter 5 (P.No.161, I.No.21.2 of PW,P&IWTD SR 2016-17) | | | | | | | | | |
| | Road Portion | Sqm | | | | | | | | |
| | 1st main(20th b cross to 16th c/s CQAL lyt | | 1 | 140.00 | 4.50 | -- | 630.00 | | | |
| | 1stA main(20th b cross to 16th c/s CQAL lyt | | 1 | 140.00 | 5.00 | -- | 700.00 | | | |
| | 1st cross | | 1 | 50.00 | 6.00 | -- | 300.00 | | | |
| | | | | | | | 1630.00 | | | |
| | Deduct prime coat | | | | | | -60.00 | | | |
| | Basic rate | | | | | | | | 3.00 | |
| | Area weightage 6% | | | | | | | | 0.18 | |
| | | | | | | | 1570.00 | | 3.18 | 4992.60 |
| 23 | KSRRB M500-7 : Providing and applying tack coat using 80/100 grade bitumen (VG10) on prepared black topped surfaces at 2.5 Kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM of machineries complete as per specifications.MORTH / Chapter 5 (P.No.161 I.No.21.7 of PW,P&IWTD SR of 2016-17) | | | | | | | | | |
| | Road Portion | Sqm | | | | | | | | |
| | For Laying BC | | | | | | | | | |
| | 1st main(20th b cross to 16th c/s CQAL lyt | | 1 | 140.00 | 4.50 | -- | 630.00 | | | |

Scanned by CamScanner

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1stA main(20th b cross to 16th c/s CQAL lyt | | 1 | 140.00 | 5.00 | -- | 700.00 | | |
| | 1st cross | | 1.00 | 50.00 | 6.00 | -- | 300.00 | | |
| | Basic rate | | | | | | | 12.00 | |
| | Area weightage 6% | | | | | | | 0.72 | |
| | | | | | | | 1630.00 | 12.72 | 20733.60 |
| 24 | KSRRB M500-19. Providing and laying bituminous concrete 30-40 mm compacted thickness with VG30 Bitumen grade using 40-60 HMP using crushed aggregates of grading II, premixed with bituminous binder at 5.4% of mix and filler, transporting the hot mix to work site, laying with a mechanical paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MoRT&H specification clause No. 500.9 complete in all respects as per specifications. MORTH Specification No. 509 (P.No.165 of I.No.21.22.6 in PW,P&IWTD S.R 2016-17) | | | | | | | | |
| | Road Portion | Cum | | | | | | | |
| | 1st main(20th b cross to 16th c/s CQAL lyt | | 1 | 140.00 | 4.50 | 0.04 | 25.20 | | |
| | 1stA main(20th b cross to 16th c/s CQAL lyt | | 1 | 140.00 | 5.00 | 0.04 | 28.00 | | |
| | 1st cross | | 1 | 50.00 | 6.00 | 0.04 | 12.00 | | |
| | Basic rate | | | | | | | 7659.00 | |
| | Area weightage 6% | | | | | | | 459.54 | |
| | | | | | | | 65.20 | 8118.54 | 529328.81 |
| 25 | KSRRB M800-13. Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5mm is exclusive of surface applied glass beads as per IRC:35. The finished surface to be level, uniform and free from streaks and holes complete as per specifications. MORTH Specification No. 803.(P.No.185, I.No.24.15 of PW,P&IWTD SR 2016-17) | | | | | | | | |
| | Edge line | Sqm | 2 | 330.00 | 0.10 | -- | 66.00 | | |
| | Basic rate | | | | | | | 512.00 | |
| | Area weightage 6% | | | | | | | 30.72 | |
| | | | | | | | 66.00 | 542.72 | 35819.52 |
| | | | | | | | | Sub Total | 4898915.318 |
| | Preperation of DPR And Project management Consultancy Charges(2% of estimated cost) | | | | | | | | 100000 |
| | Miscellaneous and rounding off | | | | | | | | 1084.68 |
| | | | | | | | | Total | 5000000.00 |
| | | | | | | | | RUPEES FIFTY LAKHS ONLY | |

**Certificate.**

1 The rates adopted based on the PWD SR, Bangalore circle for year 2016-17.
2 The provisions made in the estimate are necessary and essential.
3 The workspot was inspected and work is found to be necessary.
4 The area comes within the Bruhat Bangalore Mahanagara Palike limits.

Assistant Executive Engineer,
Kodigehalli Sub Division,
Yelahanka Zone, B.B.M.P.,
Bangalore.

Executive Engineer
Byatarayananura Division
Yalahanka Zone, B.B.M.P
Bangalore-560092

Technical Sanction
Accounts for RS 50 w/ archeology
Head of Acc. P3158
CLR No. 42 Dt. 29/01/18

TA CS (YNK)

Scanned by CamScanner